

### **REMARKS/ARGUMENTS**

This Amendment is made to more particularly claim the present invention. Claims 1-23 are pending in the present Application. Applicant has amended claims 1, 10 and 17. Consequently, claims 1-23 remain pending in the present Application.

Applicant has amended claims 1, 10 and 17 to recite that the checker or the checking step further includes calculating the desired output based upon an input to the island. Support for the amendment can be found in the specification, page 12, lines 18-20, which indicate that the checker can adapt to new inputs. Applicant also respectfully submits that no new matter is added.

In the parent case, the Examiner rejected claims 1-23 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains. The Examiner also rejected claims 1-23 under 35 U.S.C. § 103 as being obvious in light of U.S. Patent No. 6,182,258 (Hollander) in view of U.S. Patent No. 6,006,024 (Guruswamy).

Upon Appeal, the Board of Patent Appeals and Interferences (Board) reversed the Examiner's rejection under 35 U.S.C. § 112, first paragraph, but affirmed the Examiner's rejection under 35 U.S.C. § 103. In affirming the Examiner's rejection under 35 U.S.C. § 103, the Board noted that the claim language recites that the checker "determines" the desired output. The Board also noted that "[m]erely" dividing the conventional model into a snooper, checker, and generator "appears to be a matter of terminology or labeling, not structure or programming." Decision on Appeal, page 16, lines 1-3.

Applicant respectfully traverses the Examiner's rejection. As previously described, claims 1, 10 and 17 recite a system, method, and computer-readable medium for providing

simulation of an integrated circuit ("IC") during development of the IC including an interface.

The system, method and computer-readable medium include a checker that calculates a desired output based upon an input to the island and checks the output to determine whether the output is the desired output. Also recited in claims 1, 10 and 17 are a snooper and generator. The snooper is coupled with the interface, monitors the interface, and obtains an output provided by the island during simulation. The generator provides the input to the island during simulation. More specifically, the generator includes the intelligence to provide the input to the island based only upon data and a request provided by the at least one test case to the generator. The request from the at least one test case requests that the generator perform a particular simulation on the island.

Thus, the checker can both generate inputs and check inputs. Moreover, using the system, method and computer-readable medium recited in claims 1, 10, and 17, hierarchical simulation of the behavior of the IC is performed. Furthermore, during integration, the generator can be replaced by another island, which provides the inputs to the island, while the snooper and checker can still check the island via the internal interface. Specification, page 13, lines 10-16. In addition, because the snooper, checker and generator can perform the functions recited, the test case(s) need not contain intelligence for controlling specific functions of the snooper, checker and generator. Specification, page 13, lines 7-20. Only the data and request for service may be provided by the test case. Consequently, the test case(s), many of which may be required for testing of the IC, are simpler to provide. As a result, testing is simplified and improved.

As argued in the parent case, Hollander in view of Guruswamy fails to teach or suggest the use of a checker that both generates the desired inputs and checks the actual inputs against the desired inputs.

Furthermore, Applicant respectfully disagrees that the present invention recited in varying scope in claims 1, 10, and 17 merely relabels functions. Instead, the cited generator, which includes intelligence to provide the input to the island based only upon data and a request from the at least one test case to the generator that the generator perform a particular simulation on the island, requires additional programming of the generator, but simplifies programming of the test cases. Stated differently, the cited references fail to teach or suggest the combination of the recited snooper, checker and generator, which allow simple test cases to be used. Instead, Hollander includes a test generation module and a checking module. Hollander, col. 4, line 66-col. 5, line 25. The system of Hollander is dynamic, which means that the test vectors can be generated in concurrence with the device being tested and can be controlled by feedback of the device. Hollander, col. 3, lines 10-13. The test generation module automatically creates inputs. Hollander col. 4, line 66-col. 5, line 7. Hollander does state that dynamic checking can include synchronizing the checking module with the test generation module. Hollander, col. 5, lines 18-25 and col. 8, lines 29-32. However, Applicant has found no mention in the cited portion of Hollander that the checking module, not the test generation module, that calculates the desired outputs based upon input(s) from the generator. Further, Applicant has found no mention in the cited portions of Hollander that the generator, rather than the test case, includes the intelligence to create such input(s). Applicant has also found no indication in Hollander that the test case can be simplified to merely provide data and a request. Consequently, Hollander fails to teach or suggest the recited system, method, and computer-readable medium in which the checker both generates the desired inputs and checks the actual inputs against the desired inputs

Guruswamy fails to remedy the defects of Hollander. Applicant can find no mention in the cited portions of Guruswamy of using a checker to not only check the outputs of the island

under test, but also to generate the desired outputs based upon the inputs. Applicant has also found no mention in Guruswamy of providing sufficient intelligence in the generator to allow test case(s) to be simplified. Consequently, any combination of Hollander and Guruswamy would also omit these features. Hollander in view of Guruswamy thus fails to teach or suggest a system, method, or computer-readable medium that includes the recited checker, the recited generator, and the recited snooper. Accordingly, Applicant respectfully submits that independent claims 1, 10 and 17 are allowable over the cited references.

Claims 2-9, 11-16 and 18-23 depend upon claims 1, 10 and 17, respectively.

Consequently, the arguments herein apply with full force to claims 2-9, 11-16 and 18-23.

Accordingly, Applicant respectfully submits that claims 2-9, 11-16 and 18-23 are allowable over the cited references.

Accordingly, for the above-mentioned reasons, Applicant respectfully submits that the claims are allowable over the cited reference. Consequently, Applicant respectfully requests reconsideration and allowance of the claims as currently presented.

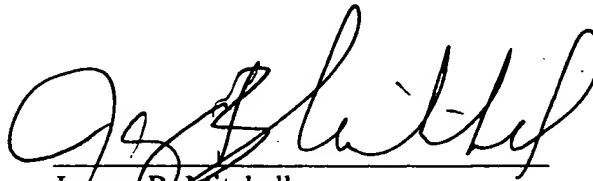
Accordingly, for the above-mentioned reasons, Applicant respectfully submits that the claims are allowable over the cited reference. Consequently, Applicant respectfully requests reconsideration and allowance of the claims as currently presented.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

SAWYER LAW GROUP LLP

December 1, 2004  
Date

A handwritten signature in black ink, appearing to read 'Janyce R. Mitchell', is written over a horizontal line.

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